

ABSTRACT

A self-heat exchange type heat exchanger which can provide a greater heat transfer area in a limited capacity, can be easily 5 prepared and can lead to drastic enhancement of heat exchange efficiency. A heat exchanger having a partition type heat transfer material (BF) for parting a high temperature fluid (1) and a low temperature fluid (2) from each other, characterized in that the heat transfer material (BF) is 10 bellows-shaped and is arranged such that both the fluids (1, 2) flow counter to each other mainly through the gap portion in the bellows section of the heat transfer material (BF) along the ridge line or valley line thereof and the heat transfer material (BF) has a fluid forwarding space portion (F) at one 15 or both ends thereof crossing the ridge line of the bellows section for forwarding one of the fluids to the gap portion in the bellows section on the opposite side thereof, whereby the fluid which has been forwarded to the opposite side via the fluid forwarding space portion (F) acts as the other fluid 20 to be heat-exchanged to perform heat exchange.